

Work Order ID 151424

Tuesday, September 27, 2016 11:53:17 AM

151424

Page 1

Item ID: 647.1402

Revision ID:

Item Name: Lower Cutter Assembly

Start Date: 9/22/2016 Start Qty: 1.00

Required Date: 9/27/2016 Req'd Qty: 1.00

Reference:

Accept

N900040100

Setup Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Approvals:

Process Plan:

DAS
21
9-89

Date: SEP 27 2016

Tooling:

Date:

Run Start

NR1

Stop

NR2

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

647.1400

B

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

DAS
6
9-89

NOV 16 2016

120

0.00

120

Small Fab

Memo

0.02

Small Fab

Assemble as per dwg and apply loctite 598 on all faying surfaces per note 2.

A/R RTV LOCTITE 598:
exp. date: 09/18

M135478

IX 16/11/18 DAS 36 9-89

130

QC5- Inspect part completeness to step on W/O

0.00

130

QC

Memo

0.00

Quality Control

1 NOV 21 2016 DAS 38 9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Work Order ID 151424

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151424

Page 2

Item ID: 647.1402 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Lower Cutter Assembly
Start Date: 9/22/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 9/27/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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140

Identify as per dwg & Stock Location: Q21045 0.00***140***

Packaging

Memo

0.00

Packaging

***IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND
REV***

1
DAS
6
9-89
NOV 2 1 2016

150

QC21- Final Inspection - Work Order Release 0.00

150

QC

Memo

0.02

Quality Control

16/11/21
DAS
21
9-89
NOV 2 1 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Tuesday, September 27, 2016 11:53:17 AM

Page 1
2

Work Order ID: 151424

151424

Parent Item: 647.1402

647 1402

Parent Item Name: Lower Cutter Assembly

Start Date: 9/22/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.10.04 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
646.9701		Manufactured	No				Each	0.0000		1			
646 9701									**	149606		NOV 16 2016	DAS 6 9-89
Cutter Sub Assembly													
NAS1149FN832P		Purchased	No				Each	2,471.000		6			
NAS1149FN832P									**			NOV 16 2016	DAS 6 9-89
Washer													
				<u>Location</u>			<u>Loc Qty</u>			<u>Loc Code</u>			
				GA			1537						
					M133769		89						
					M135058		1448						
				ST263			934						
					M135603		934			6			
MS27039-08-19		Purchased	No				Each	276.0000		3			
MS27039-08-19									**	135865		NOV 16 2016	DAS 6 9-89
Screw													
				<u>Location</u>			<u>Loc Qty</u>			<u>Loc Code</u>			
				ST277			276						
					m135536		9						
					m135566		267						

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐			FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER :					

Picklist Print

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Work Order ID: 151424

151424

Parent Item: 647.1402

647 1402

Parent Item Name: Lower Cutter Assembly

Start Date: 9/22/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042L08

Purchased

No

Each

854.0000

3

MS21042L 08

Nut

NOV 16 2016 9-89 DAS

Location

Loc Qty

Loc Code

GA

118

m134063

18

m135274

100

ST303

736

m135536

136

m135566

200

m135672

200

m135766

200

647.1501

Manufactured

No

Each

1.0000

1

647 1501

Lower Deflector Assembly

150381

NOV 16 2016

9-89 DAS

Location

Loc Qty

Loc Code

CCK002

1

140918

1

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Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

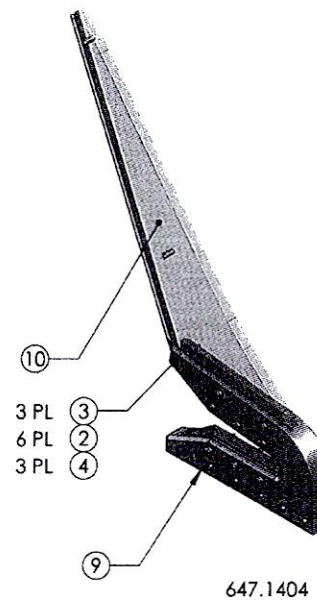
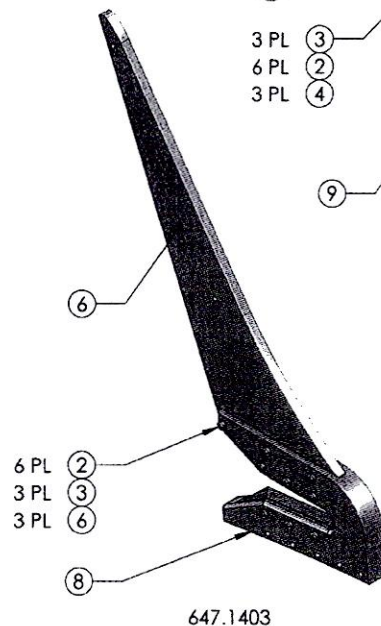
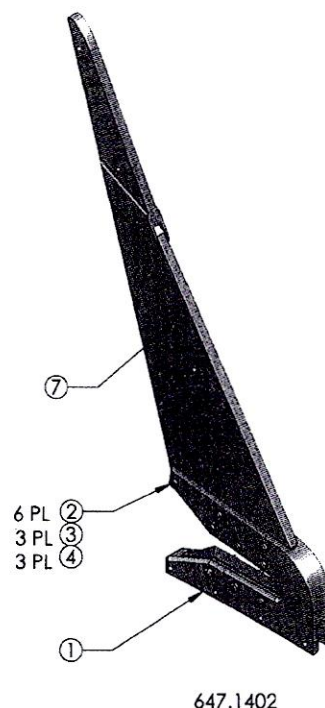
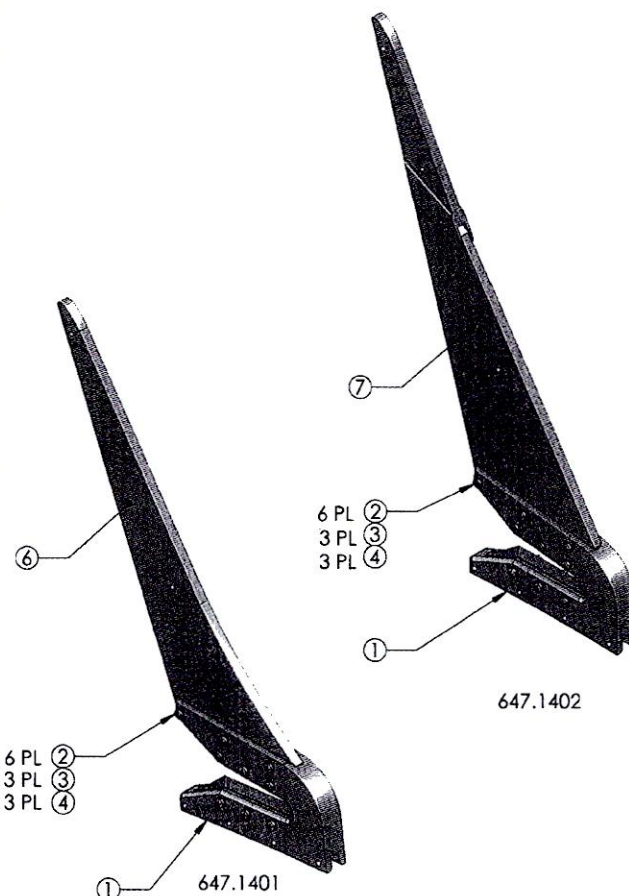
Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

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NOTES:

1. IDENTIFY IAW MPP-120
2. APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 1, 6, & 7 UPON ASSEMBLY

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
N/C	LAST PROTOTYPE REVISION: PRT		N/C
A	INITIAL RELEASE	06/15/09	P. BRAVO
A	INCORPORATED ECH'S 02913 & 03911	06/07/10	P. BRAVO
B	INCORPORATED ECH'S 05530	02/28/16	P. BRAVO



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 151424 MJS
16-09-27

1				10	647.1513	UPPER DEFLECTOR		
1				9	646.9703	CUTTER SUB ASSY		
	1			8	646.9702	CUTTER SUB ASSY		
		1		7	647.1501	LOWER DEFLECTOR ASSY		
	1		1	6	647.1510	UPPER DEFLECTOR		
A/R	A/R	A/R	A/R	5	601.2045	RTV, LOCTITE 598		
3	3	3	3	4	601.1541	NUT	MS21042L08	
3	3	3	3	3	601.2765	SCREW	MS27039-0819	
6	6	6	6	2	601.2764	WASHER	NAS1149FN832P	
		1	1	1	646.9701	CUTTER SUB ASSY		
X					647.1404	CUTTER ASSY (UPPER)		
	X				647.1403	CUTTER ASSY (UPPER)		
		X			647.1402	CUTTER ASSY (LOWER)		
			X		647.1401	CUTTER ASSY (UPPER)		
.1404	.1403	.1402	.1401	FIND #	PART #	DESCRIPTION	MATL	SPEC.

PARTS LIST			
QTY			
NEXT ASSY (S)			
647.1300			
ORIGINAL DATE 08-19-08			
DRAWN BY J. GARDNER P. BRAVO			
DRAWING APPROVAL P. BRAVO			
CONTRACTING			
UNLESS OTHERWISE SPECIFIED			
DIMENSIONS ARE IN INCHES			
TOLERANCES ARE:			
2 PLACE DECIMALS: ±.01			
3 PLACE DECIMALS: ±.005			
ANGLES: ±.5°			
SHEET	CAGE CODE	DWG. NO.	REV.
B	07M26	647.1400	B
SCALE NONE		SHEET 1 OF 1	

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3030 ENTERPRISE CT., SUITE A
VISTA, CA 92081
(760) 724-5500
APICAL INDUSTRIES INC.
DART AEROSPACE
CUTTER ASSY